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# (12) United States Patent

Stein et al.

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## (54) BEACON WITH ILLUMINATED LEDS ARRAY BOARDS CONNECTED

(71) Applicant: Code 3, Inc., St. Louis, MO (US)

(72) Inventors: Paul L. Stein, O'Fallon, MO (US); Kyle Christopher Stuesse, St. Peters, MO

US)

(73) Assignee: Code 3, Inc, St. Louis, MO (US)

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#### (58) Field of Classification Search

See application file for complete search history.

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Primary Examiner — Anh Mai Assistant Examiner — Zachary J Snyder (74) Attorney, Agent, or Firm — Stoel Rives LLP

#### (57) ABSTRACT

A signal lighting beacon for a vehicle has a base and a plurality of LED arrays mounted on the base. the LED arrays are arranged to direct light signals outward in multiple different radial directions. Each LED array has an LED array circuit board having plurality of LEDs and an electrical connector mounted thereon. A common circuit board is connected to each of the plurality of LED arrays by electrical connectors on the common circuit board. The electrical connectors of single-sided LED circuit boards can be substantially identical to the electrical connectors on a single-sided common circuit board disposed at an angle relative to the LED circuit boards. The connectors can be connected to one another by inserting spade terminals into corresponding sockets from the sides of the sockets. The LED arrays can be pivoted relative to the common circuit board without withdrawing the spade terminals from the sockets.

#### 12 Claims, 14 Drawing Sheets

